

OPTIONAL INFORMATION	
Name of School:	Date of Inspection:
Vocational Program/Course/Room:	Signature of Inspector:

ELECTRICAL SAFETY WORK PRACTICES SELF INSPECTION CHECKLIST

Instructions: This checklist covers the regulations issued by the U.S. Department of Labor - OSHA under the General Industry standards 29 CFR 1910.331, 1910.332 and 1910.333 which were adopted by reference. It applies to both students and school district employees who potentially face a risk of electrical shock. This checklist does not apply to qualified persons working on generation, transmission, and distribution installations; communications installations; installations in vehicles; and railway installations. Definitions of underlined terms are provided at the end of the checklist to help you understand some of the questions. Please review the checklist "Control of Hazardous Energy Sources" in conjunction with this checklist.

This checklist doesn't address work on or near energized overhead lines or work in confined or enclosed work spaces with energized lines. If these conditions are encountered, please consult 29 CFR 1910.333(c)(3) and 1910.333(c)(5) respectively.

Training		<u>Please Circle</u>
1.	Are teachers/students who face a risk of electric shock trained and familiar with the safety-related work practices required by OSHA regulations 29 CFR 1910.331 through 1910.335? [29 CFR 1910.332(b)(1)]	Y N N/A DK

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2. Are teachers/students who are permitted to work on or near exposed energized parts and are not qualified persons given the following additional training: a) The skills and techniques necessary to distinguish exposed live parts from other parts of electric equipment; b) The skills and techniques necessary to determine the nominal voltage of exposed live parts; and c) The clearance distances specified in Table 1 and the corresponding voltages to which the qualified person will be exposed? [29 CFR 1910.332(b)(3)] Y N N/A DK
3. Is the degree of training provided determined by the risk to the teacher/student? [29 CFR 1910.332(c)] Y N N/A DK

Table 1
Approach Distances for Qualified Employees
Alternating Current

Voltage Range (phase to phase)	Minimum Approach Distance
300V and less	Avoid Contact
Over 300V, not over 750V	1 ft. 0 in. (30.5 cm)
Over 750V, not over 2kV	1 ft. 6 in. (46 cm)
Over 2kV, not over 15kV	2 ft. 0 in. (61 cm)
Over 15kV, not over 37kV	3 ft. 0 in. (91 cm)
Over 37kV, not over 87.5kV	3 ft. 6 in. (107 cm)
Over 87.5kV, not over 121kV	4 ft. 0 in. (122 cm)
Over 121kV, not over 140kV	4 ft. 6 in. (137 cm)

Selection and Use of Work Practices

4. Are all live parts deenergized before teachers/students can work on them unless it can be demonstrated that deenergizing introduces additional or increased hazards or is infeasible due to equipment design or operational limitations? [29 CFR 1910.333(a)(1)] Y N N/A DK

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Note: Live parts that operate at less than 50 volts to ground need not be deenergized if there will be no increased exposure to electrical burns or to explosion due to electrical arcs.

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| 5. | If live parts are not deenergized (i.e., for reasons of increased or additional hazards or infeasibility), are other safety-related work practices used to protect teachers/students who may be exposed to electrical hazards? [29 CFR 1910.333(a)(2)] | Y N N/A DK |
| 6. | Do the work practices protect the teachers/students against contact with energized circuit parts directly with any part of their body or indirectly through some other conductive object? [29 CFR 1910.333(a)(2)] | Y N N/A DK |

Working On or Near Exposed Deenergized Parts

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| 7. | When a student/teacher is exposed to contact with parts of fixed electrical equipment or circuits which have been deenergized, have the circuits energizing the parts been locked out or tagged or both? [29 CFR 1910.333(b)(2)] | Y N N/A DK |
| 8. | Is there a written copy of electrical safety procedures (including lockout and tagging) and is it available for inspection? [29 CFR 1910.333(b)(2)(i)] | Y N N/A DK |
| 9. | Are safe procedures determined before circuits or equipment are deenergized? [29 CFR 1910.333(b)(2)(ii)(A)] | Y N N/A DK |

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10. Are the circuits and equipment to be worked on disconnected from all energy sources? [29 CFR 1910.333(b)(2)(ii)(B)] Y N N/A DK

Note: Control circuit devices, such as push buttons, selector switches and interlocks, may not be used as the sole means for deenergizing circuits or equipment. Interlocks for electric equipment may not be used as a substitute for lockout and tagging procedures.

11. Has stored electric energy which might endanger teachers/students been released? [29 CFR 1910.333(b)(2)(ii)(C)] Y N N/A DK

Note: Capacitors shall be discharged. If the stored electric energy might endanger personnel, high capacitance elements shall be short-circuited and grounded.

12. Is stored non-electrical energy in devices that could reenergize electric circuit parts blocked or relieved to the extent that the circuit parts could not be accidentally energized by the device? [29 CFR 1910.333(b)(2)(ii)(D)] Y N N/A DK

13. Is a lock and tag placed on each disconnecting means used to deenergize circuits and equipment on which work is to be performed? [29 CFR 1910.333(b)(2)(iii)(A)] Y N N/A DK

14. Is the lock attached so as to prevent anyone from operating the disconnecting means unless they resort to undue force or the use of tools? [29 CFR 1910.333(b)(2)(iii)(A)] Y N N/A DK

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15. Does each tag contain a statement prohibiting unauthorized operation of the disconnecting means and removal of the tag? [29 CFR 1910.333(b)(2)(iii)(B)] Y N N/A DK

Note: If a lock cannot be applied, or if the teacher can demonstrate that tagging procedures will provide a level of safety equivalent to that provided by the use of a lock, a tag may be used without a lock. [29 CFR 1910.333(b)(2)(iii)(C)]

16. When a tag is used without a lock, is at least one additional safety measure that provides a level of safety equivalent to that obtained by the use of a lock used? [29 CFR 1910.333(b)(2)(iii)(D)] Y N N/A DK

Note: Examples of additional safety measures include the removal of an isolating circuit element, blocking of a controlling switch, or opening of an extra disconnecting switch.

17. Is a lock placed without a tag only under all the following conditions? [29 CFR 1910.333(b)(2)(iii)(E)] Y N N/A DK

- (1) Only one circuit or piece of equipment is deenergized, and
- (2) The lock out period does not extend beyond the school day,
- (3) Students or teachers exposed to the hazards associated with reenergizing the circuit or equipment are familiar with this procedure.

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18. Are the requirements below met before any circuit or equipment can be considered and worked on as deenergized? [29 CFR 1910.333(b)(2)(iv)] Y N N/A DK

(A) A qualified person operates the equipment operating controls or otherwise verifies that the equipment cannot be restarted.

(B) A qualified person uses test equipment to test the circuit elements and electric parts of equipment to which students/teachers will be exposed and must verifies that the circuit elements and equipment parts are deenergized. The test must also determine if any energized conditions exist as a result of inadvertently induced voltage or unrelated voltage feedback even-though specific parts of the circuit have been deenergized and presumed to be safe.

19. Are all of the following requirements met in the order given, before circuits or equipment are reenergized, even temporarily? [29 CFR 1910.333(b)(2)(v)] Y N N/A DK

(A) A qualified person conducts tests and visual inspections, as necessary, to verify that all tools, electrical jumpers, shorts, grounds, and other such devices have been removed so that the circuits and equipment can be safely energized.

(B) Students/teachers exposed to the hazards associated with reenergizing the circuit or equipment are warned to stay clear of circuits and equipment.

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(C) Each lock and tag is removed by the student/teacher who applied it or under his or her direct supervision. However, if the student is absent from the workplace, the lock or tag may be removed by a qualified person designated to perform this task provided that:

- (1) The teacher ensures that the student who applied the lock or tag is not available at the school, and
- (2) The teacher ensures that the student is aware that the lock or tag has been removed before he or she resumes work at that place or workplace.

(D) There is a visual determination that all students are clear of the circuits and equipment.

Working On or Near Exposed Energized Parts

20. Are only qualified students or teachers permitted to work on electric circuit parts or equipment that have not been deenergized? [29 CFR 1910.333(c)(2)] Y N N/A DK

Note: This paragraph applies to work performed on exposed live parts (involving either direct contact or contact by means of tools or material) or near enough to them for students or teachers to be exposed to any hazard they present. [29 CFR 1910.333(c)(1)]

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| 21. | Are students or teachers restricted from entering spaces containing exposed energized parts, unless illumination is provided that enables them to perform the work safely? [29 CFR 1910.333(c)(4)] | Y N N/A DK |
| 22. | Are students/teachers prevented from handling conductive materials and equipment which are in contact with the person's body which may contact exposed energized conductors or circuit parts? [29 CFR 1910.333(c)(6)] | Y N N/A DK |
| 23. | If students/teachers must handle long dimensional conductive objects (such as ducts and pipes) in areas with exposed live parts, have work practices been instituted (such as the use of insulation, guarding and material handling techniques) which will minimize the hazard? [29 CFR 1910.333(c)(6)] | Y N N/A DK |
| 24. | Do portable ladders have nonconducting siderails when they are used by students/teachers in situations where the ladder could contact exposed energized parts? [29 CFR 1910.333(c)(7)] | Y N N/A DK |
| 25. | Is the use of conductive articles of jewelry, clothing (such as watchbands, bracelets, rings, keychains, necklaces, metalized aprons, cloth with conductive threads, or metal head gear) prohibited for students and teachers working with electricity? [29 CFR 1910.333(c)(8)] | Y N N/A DK |
| 26. | Are students/teachers prohibited from performing housekeeping duties where live parts present an electrical contact hazard due to housekeeping duties which must be performed near such parts? [29 CFR 1910.333(c)(9)] | Y N N/A DK |

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| 27. | If students/teachers do conduct housekeeping duties near live electrical circuits, are adequate safeguards (such as insulating equipment or barriers) used? [29 CFR 1910.333(c)(9)] | Y N N/A DK |
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Definitions:

Qualified person means one familiar with the construction and operation of the equipment and the hazards involved. Whether a teacher/student is considered to be a "qualified person" depends upon various circumstances in the workplace. It is possible and, in fact, likely for an individual to be considered "qualified" with regard to certain equipment in the workplace, but "unqualified" as to other equipment. A person who is undergoing on-the-job training and who, in the course of such training, has demonstrated an ability to perform duties safely at his or her level of training and who is under the direct supervision of a qualified person is considered to be a qualified person for the performance of those duties.

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